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10/511,699	05/27/2005	Masato Doi	112857-470	8615

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EXAMINER	
MCCLELLAND, KIMBERLY KEIL	
ART UNIT	**PAPER NUMBER**
1734	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/511,699	DOI ET AL.	
	Examiner	Art Unit	
	Kimberly K. McClelland	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *24-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *24-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 34 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The term "partially embedded state" does not appear in the specification, nor is such a concept visible in the drawings. How does one skilled in the art determine the magnitude of an embedded state? For the purpose of examination, the term "partially embedded stated" will refer to adhering the device to the outer surface of the adhesive layer, without further insertion of the device.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 24-34 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0087476 to Oohata et al.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

5. With respect to claim 24, Oohata et al. discloses a device transfer method, including embedding devices arranged on a first substrate into an pressure sensitive adhesive layer provided on a second substrate (See paragraph 0095); and stripping the devices from the first substrate so as to hold the devices in an embedded state in the pressure sensitive adhesive layer (See paragraphs 0042, and 0049).

6. As to claim 25, Oohata et al. discloses hardening the pressure sensitive adhesive layer after the devices are held in the embedded state in the pressure sensitive pressure sensitive adhesive layer (See paragraphs 0054 and 0055).

7. As to claim 26, Oohata et al. discloses forming first electric wirings on the pressure sensitive adhesive layer after the pressure sensitive adhesive layer is hardened (See paragraph 0164).

8. As to claim 27, Oohata et al. discloses adhering a third substrate onto the side on which the first electric wirings are formed of the pressure sensitive adhesive layer after

the first electric wirings are formed on the pressure sensitive adhesive layer (See paragraph 0167).

9. As to claim 28, Oohata et al. discloses stripping the second substrate (43) and the pressure sensitive adhesive layer (45) from each other after the third substrate is adhered to the side on which the first electric wirings are formed of the pressure sensitive adhesive layer (See Figures 15-16 and paragraph 0186).

10. As to claim 29, Oohata et al. discloses the pressure sensitive adhesive layer is provided with openings (51) reaching the devices after the second substrate and the pressure sensitive adhesive layer are stripped from each other (See Figure 16, and paragraph 0186).

11. As to claim 30, Oohata et al. discloses filling the openings with a conductive material and forming second electric wirings on the pressure sensitive adhesive layer (See paragraph 0168).

12. As to claim 31, Oohata et al. discloses bringing the devices into contact with a temporary adhesion layer provided on the first substrate for temporarily adhering the devices to the temporary adhesion layer thereby arranging the devices on the first substrate, before the embedding of the devices into the pressure sensitive adhesive layer (See Figures 1A-1C and paragraph 0046).

13. As to claim 32, Oohata et al. discloses tack of the pressure sensitive adhesive layer provided on the second substrate is greater than a tack of the temporary adhesion layer provided on the first substrate (See paragraphs 0109, 0120, and Figures 2D-2F).

14. As to claim 33, Oohata et al. discloses the tack any one of the layer and the temporary adhesion layer is changed so that the tack of the pressure sensitive adhesive layer will be greater than the tack of the temporary adhesion layer (See paragraphs 0054 and 0055).

15. As to claim 34, Oohata et al. discloses the pressure sensitive adhesive layer provides the devices in a partially embedded state (See Figures 1A-1C).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

17. Claims 24-39, and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0162463 to Hayashi et al. in view of U.S. Patent No. 5,426,342 to Nakamura et al.

18. With respect to claim 24, Hayashi et al. discloses an element transfer method, including embedding devices arranged on a first substrate into an adhesive layer provided on a second substrate; and stripping the devices from the first substrate so as to hold the devices in an embedded state in the adhesive layer (See paragraphs 0021, and 0110). However, Hayashi et al. does not disclose using pressure sensitive adhesive. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column

4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53). Therefore, it would have been obvious to combine Nakamura et al. with Hayashi et al. to obtain the invention as disclosed in claim 24.

19. As to claim 25, Hayashi et al. discloses hardening the adhesive layer after the devices are held in the embedded state in the pressure sensitive adhesive layer (See paragraph 0111). However, Hayashi et al. does not disclose using pressure sensitive adhesive. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53). Therefore, it would have been obvious to combine Nakamura et al. with Hayashi et al. to obtain the invention as disclosed in claim 25.

20. As to claim 26, Hayashi et al. discloses forming first electric wirings on the adhesive layer after the pressure sensitive adhesive layer is hardened (See paragraph 0132). However, Hayashi et al. does not disclose using pressure sensitive adhesive.

Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53). Therefore, it would have been obvious to combine Nakamura et al. with Hayashi et al. to obtain the invention as disclosed in claim 26.

21. As to claim 27, Hayashi et al. discloses adhering a third substrate onto the side on which the first electric wirings are formed of the adhesive layer after the first electric wirings are formed on the adhesive layer (See paragraph 0134). However, Hayashi et al. does not disclose using pressure sensitive adhesive. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53). Therefore, it would have been obvious to combine Nakamura et al. with Hayashi et al. to obtain the invention as disclosed in claim 27.

22. As to claim 28, Hayashi et al. discloses stripping the second substrate (43) and the adhesive layer (45) from each other after the third substrate is adhered to the side

on which the first electric wirings are formed of the adhesive layer (See Figures 11-12). However, Hayashi et al. does not disclose using pressure sensitive adhesive. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53). Therefore, it would have been obvious to combine Nakamura et al. with Hayashi et al. to obtain the invention as disclosed in claim 28.

23. As to claim 29, Hayashi et al. discloses the adhesive layer is provided with openings (51) reaching the devices after the second substrate and the pressure sensitive adhesive layer are stripped from each other (See Figure 12). However, Hayashi et al. does not disclose using pressure sensitive adhesive. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53). Therefore, it would have been obvious to combine Nakamura et al. with Hayashi et al. to obtain the invention as disclosed in claim 29.

24. As to claim 30, Hayashi et al. discloses filling the openings with a conductive material and forming second electric wirings on the adhesive layer (See paragraph 0168). However, Hayashi et al. does not disclose using pressure sensitive adhesive. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53). Therefore, it would have been obvious to combine Nakamura et al. with Hayashi et al. to obtain the invention as disclosed in claim 30.

25. As to claim 31, Hayashi et al. discloses bringing the devices into contact with a temporary adhesion layer provided on the first substrate for temporarily adhering the devices to the temporary adhesion layer thereby arranging the devices on the first substrate, before the embedding of the devices into the adhesive layer (See paragraph 0109). However, Hayashi et al. does not disclose using pressure sensitive adhesive. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura

et al., column 4, lines 45-53). Therefore, it would have been obvious to combine Nakamura et al. with Hayashi et al. to obtain the invention as disclosed in claim 31.

26. As to claim 32, Hayashi et al. discloses tack of the adhesive layer provided on the second substrate is greater than a tack of the temporary adhesion layer provided on the first substrate (See paragraphs 0109, 0120, and Figures 2D-2F). However, Hayashi et al. does not disclose using pressure sensitive adhesive. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53). Therefore, it would have been obvious to combine Nakamura et al. with Hayashi et al. to obtain the invention as disclosed in claim 32.

27. As to claim 33, Hayashi et al. discloses the tack any one of the layer and the temporary adhesion layer is changed so that the tack of the adhesive layer will be greater than the tack of the temporary adhesion layer (See paragraph 0111). However, Hayashi et al. does not disclose using pressure sensitive adhesive. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the

element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53). Therefore, it would have been obvious to combine Nakamura et al. with Hayashi et al. to obtain the invention as disclosed in claim 33.

28. As to claim 34, Hayashi et al. discloses as the adhesive layer provides the devices in a partially embedded state (See figure 2C). However, Hayashi et al. does not disclose using pressure sensitive adhesive. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53). Therefore, it would have been obvious to combine Nakamura et al. with Hayashi et al. to obtain the invention as disclosed in claim 34.

29. As to claim 35, Hayashi et al. discloses an element transfer method. However, Hayashi et al. does not disclose using an insulating pressure sensitive adhesive. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using an insulating heat sensitive and pressure sensitive adhesive layer (polyamide resin, column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by

Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53). Therefore, it would have been obvious to combine Nakamura et al. with Hayashi et al. to obtain the invention as disclosed in claim 35.

30. As to claim 36, Hayashi et al. discloses embedding other-side devices (3) arranged on a first substrate into a adhesive layer (7) provided on a second substrate(6) where one-side devices (8) are embedded in the adhesive layer; and stripping the other-side devices from the first substrate thereby holding the other-side devices in an embedded states in the adhesive layer (See Figure 2A-2F). However, Hayashi et al. does not disclose using pressure sensitive adhesive. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53). Therefore, it would have been obvious to combine Nakamura et al. with Hayashi et al. to obtain the invention as disclosed in claim 36.

31. As to claim 37, Hayashi et al. discloses the one-side devices and the other-side devices have different characteristics (See paragraph 0126).

32. As to claim 38, Hayashi et al. discloses the one-side (8) devices and the other-side devices (3a) are held in the embedded state in different areas on the substrate (See Figure 2D).

33. As to claim 39, Hayashi et al. discloses embedding devices (42) arranged on a first substrate (41) into a adhesive layer (45) provided on a second substrate (43, See Figure 10); stripping the devices from the first substrate thereby holding the devices in an embedded state in the adhesive layer (See Figure 11), and hardening the adhesive layer (See paragraph 0157); forming first electric wirings (46) on the adhesive layer, adhering a third substrate (47) onto a side on which the first electric wirings are formed of the adhesive layer, and stripping the second substrate and the adhesive layer from each other (See Figure 12); and providing adhesive layer with openings (65, See Figure 16) reaching the devices, filling the openings with a conductive material (49), and forming second electric wirings (63, 64) on the adhesive layer. However, Hayashi et al. does not disclose using pressure sensitive adhesive. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53). Therefore, it would have been obvious to combine Nakamura et al. with Hayashi et al. to obtain the invention as disclosed in claim 39.

34. As to claim 41, Hayashi et al. discloses embedding one-side devices (42) arranged on a first substrate (41) into a adhesive layer (45) provided on a second substrate(43, See Figure 10), and stripping the one-side devices from the first substrate thereby holding the one-side devices in an embedded state in the adhesive layer (See Figure 11); further embedding other-side devices arranged on the first substrate into the adhesive layer (See paragraph 0170), and stripping the other-side devices from the first substrate thereby holding the other-side devices (62) in an embedded state in the adhesive layer, where the one-side devices are embedded in the adhesive layer; hardening the adhesive layer where the one-side devices and the other-side devices are held in the embedded state in the adhesive layer (See paragraph 0157); forming first electric wirings on the adhesive layer (46), adhering a third substrate (47) onto the side on which the first electric wirings are formed of the adhesive layer, and stripping the second substrate and the adhesive layer from each other (See Figure 12); and providing the adhesive layer with openings reaching the one-side devices or the other-side devices, filling the openings with a conductive material (49), and forming second electric wirings on the adhesive layer (63, 64, See Figure 16). However, Hayashi et al. does not disclose using pressure sensitive adhesive. Nakamura et al. discloses a method of manufacturing a fluorescent display device, including using a heat sensitive and pressure sensitive adhesive layer (column 4, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the pressure sensitive adhesive, taught by Nakamura et al., with the element transfer method disclosed by Hayashi et al. The motivation would have been to use an

adhesive with good volatility and satisfactory adhesion (Nakamura et al., column 4, lines 45-53). Therefore, it would have been obvious to combine Nakamura et al. with Hayashi et al. to obtain the invention as disclosed in claim 41.

35. As to claim 42, Hayashi et al. discloses the one-side devices and the other-side devices have different characteristics (See paragraph 0170).

36. As to claim 43, Hayashi et al. discloses one-side devices and the other-side devices are held in the embedded state in different areas on the second substrate (See Figure 16).

37. Claims 40 and 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over .S. Patent Application Publication No. 2003/0162463 to Hayashi et al. in view of U.S. Patent No. 5,426,342 to Nakamura et al. as applied to claims 24-39 and 41-43 above, and further in view of U.S. Patent Application Publication No. 2003/0227253 to Seo et al.

38. With respect to claim 40, Hayashi et al. discloses an element transfer method, including using light emitting devices as elements (See paragraph 0170). Nakamura et al. discloses the use of a pressure and heat sensitive adhesive to adhere the elements to a substrate. However, Hayashi et al. and Nakamura et al. do not disclose driving methods. Seo et al. discloses display is carried out through simple matrix driving by impressing a voltage on the devices through the first electric wirings and the second electric wirings (See paragraph 0016). It would have been obvious to one of ordinary skill in the art to combine the driving method of Seo et al. with the element transfer

method, disclosed by Hayashi et al. and the pressure sensitive adhesive taught by Nakamura et al. The motivation would have been to cause electroluminescence (Seo et al., See paragraph 0051). Therefore it would have been obvious to combine Seo et al. with Hayashi et al. and Nakamura et al. to obtain the invention as disclosed in claim 40.

39. As to claim 44, Hayashi et al. discloses an element transfer method, including using light emitting devices as elements (See paragraph 0170). Nakamura et al. discloses the use of a pressure and heat sensitive adhesive to adhere the elements to a substrate. However, Hayashi et al. and Nakamura et al. do not disclose driving methods. Seo et al. discloses display is carried out through simple matrix driving by impressing a voltage on the devices through the first electric wirings and the second electric wirings (See paragraph 0016). It would have been obvious to one of ordinary skill in the art to combine the driving method of Seo et al. with the element transfer method, disclosed by Hayashi et al. and the pressure sensitive adhesive taught by Nakamura et al. The motivation would have been to cause electroluminescence (Seo et al., See paragraph 0051). Therefore it would have been obvious to combine Seo et al. with Hayashi et al. and Nakamura et al. to obtain the invention as disclosed in claim 44.

40. As to claim 45, Hayashi et al. discloses one of the one-side devices and the other-side devices are any one of display devices and driving circuit devices (see paragraph 0170).

41. As to claim 46, Hayashi et al. discloses an element transfer method, including using light emitting devices as elements (See paragraph 0170). Nakamura et al. discloses the use of a pressure and heat sensitive adhesive to adhere the elements to a

substrate. However, Hayashi et al. and Nakamura et al. do not disclose driving methods. Seo et al. discloses display is carried out through active matrix driving by impressing a voltage on the display devices by the driving circuit devices. (See paragraph 0016). It would have been obvious to one of ordinary skill in the art to combine the driving method of Seo et al. with the element transfer method, disclosed by Hayashi et al. and the pressure sensitive adhesive taught by Nakamura et al. The motivation would have been to allow for drive at a low voltage (Seo et al., See paragraph 0052). Therefore it would have been obvious to combine Seo et al. with Hayashi et al. and Nakamura et al. to obtain the invention as disclosed in claim 46.

Conclusion

42. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 6,982,484 to Ogura et al. discloses polyamide resins have good insulation properties (column 7, lines 3-7).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly K. McClelland whose telephone number is (571) 272-2372. The examiner can normally be reached on 8:00 a.m.-5 p.m. Mon-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris A. Fiorilla can be reached on (571)272-1187. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kim McClelland

KKM

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